

THE MASSACHUSETTS STATE BUILDING CODE

780 CMR

Sixth Edition

COMMONWEALTH OF MASSACHUSETTS

780 CMR: STATE BOARD OF BUILDING REGULATIONS AND STANDARDS
THE MASSACHUSETTS STATE BUILDING CODE

FOREWORD and ACKNOWLEDGMENTS

THE MASSACHUSETTS STATE BUILDING CODE (780 CMR), *SIXTH EDITION*

FOREWORD

The *Sixth Edition* of 780 CMR, the Massachusetts State Building Code has been revised from the *Fifth Edition* to make it consistent with the common code format of the National Code, the Uniform Building Code and the Southern Building Code, both in chapter and sub-chapter numbering. The technical content is based on the 1993 edition of the Building Officials and Code Administrators (BOCA) National Building Code. Extensive technical changes have been made as a result of reviews by the BBRS technical advisory committees, listed in this section, and also as required by Massachusetts General Laws and Specialized Codes and Regulations.

Chapter 36, *the One and Two Family Dwelling Code*, has been revised from the *Fifth* to the *Sixth Edition* to make it consistent with the 1995 edition of the CABO One and Two Family Dwelling Code to the extent practicable. Substantive changes have been made as a result of reviews by the BBRS staff, state and municipal building officials, and technical advisory boards.

The following chapters are considered unique to the Commonwealth of Massachusetts, in their entirety:

Chapter 1	-	Administration
Chapter 9	-	Fire Protection Systems
Chapter 11	-	Accessibility
Chapter 13	-	Energy Conservation
Chapter 16	-	Structural Loads
Chapter 18	-	Foundations and Retaining Walls
Chapter 27	-	Electrical Wiring and Equipment
Chapter 29	-	Plumbing and Gasfitting
Chapter 30	-	Elevator and Conveying Systems
Chapter 34	-	Repair, Alteration and Change of Use of Existing Buildings
Chapter 35	-	Manufactured Buildings, Building Components and Mobile Homes

Several differences appear in the format of the *Sixth Edition* from that of the *Fifth Edition*; a major change pertaining to the numbering system. Other changes in the content of the *Sixth Edition* that are different from that of national building code, are shown in ***bold-faced, italicized type***. Chapters which are significantly different than the national building code are identified with the parenthetical statement ***This Chapter is Entirely Unique to Massachusetts***.

The *Sixth Edition* of the Massachusetts State Building Code (780 CMR) becomes effective on February 28, 1997.

In recognition of the time periods involved in the planning, design and construction of buildings and building related projects and in order to effect an orderly and equitable transition between the *Fifth Edition* and *Sixth Edition*, the State Board of Building Regulations and Standards implements the following policy;

From February 28, 1997 to August 27, 1997 the *Fifth* and *Sixth Editions* of the Massachusetts State Building Code shall be considered to be concurrently effective. During this period, the end user may elect to utilize the provisions of either the *Fifth Edition* in its entirety or the *Sixth Edition* in its entirety.

The *Fifth Edition* will be automatically repealed on August 27, 1997 after which date all users shall comply with the provisions of the *Sixth Edition*.

780 CMR: STATE BOARD OF BUILDING REGULATIONS AND STANDARDS

FORWARD AND ACKNOWLEDGEMENTS

includes a *Chapter\Article Number Cross Reference-Index* and a *Summary of Major Changes* made in the *Sixth Edition* relative to the *Fifth Edition* and the national building code.

The code may be ordered in any manner identified above by calling the State House Bookstore @ (617) 727-2834.

AMENDMENT PROCESS

Pursuant to M.G.L. c. 143, § 97, 780 CMR is subject to change by amendment. Amendments shall be proposed on forms made available at the office of the Board of Building Regulations and Standards. Proposals are offered at public hearing where the Board hears testimony both for and against the proposals. Proposals are then studied and voted upon by the Board. Those that are voted “approved” are issued as amendments to 780 CMR and become effective when published in the Bi-weekly **MASSACHUSETTS REGISTER**.

All proposals for amendment to 780 CMR must be received at least 60 days prior to the public hearing date. Changes that are voted “approved” are issued on a cycle determined by the Board; generally not sooner than a two year cycle.

The Board convenes public hearings to entertain changes to the code a minimum of twice each calendar year; in May and November. Other public hearings may be scheduled as necessary.

Anyone wishing to present a code change proposal should contact the Office of the Board at (617) 727-3200 extension 614 for information on how to file. It is the responsibility of the code user to check the **MASSACHUSETTS REGISTER** periodically to determine if amendments have been issued.

BOARDS AND COMMITTEES

STATE BOARD OF BUILDING REGULATIONS AND STANDARDS

Professor Kentaro Tsutsumi, P.E., Chairman
Registered Professional Engineer (Structural)

Daniel P. O’Sullivan, Vice Chairman
Inspector of Buildings (City)

Thomas E. Donovan, General Contractor
of One and Two Family Homes

Thomas G. Gatzunis, P.E.
Inspector of Buildings (Town)

William P. Kramer, P.E.
Registered Professional Engineer
(Mechanical)

Alexander H. MacLeod, R.A.
Registered Architect

Stanley S. Shuman, P.E.
General Contractor of Commercial & Industrial Buildings

Thomas L. Rogers (Ex-Officio)
Chief of Inspections
(Gary Moccia, P.E. - Designee)

Robert E. Banks
Building Trades Representative

Chief William V. Dolan
Head of a Local Fire Department

Steven Coan (Ex Officio)
State Fire Marshal
(Maurice M. Pilette, P.E. - Designee)

PAST MEMBERS CONTRIBUTING TO THIS CODE:

Richard McIntosh
Inspector of Buildings (Town)

Douglas Cole Smith, R.A.
Registered Architect

STAFF

Thomas L. Rogers, Administrator

780 CMR: STATE BOARD OF BUILDING REGULATIONS AND STANDARDS
THE MASSACHUSETTS STATE BUILDING CODE

RESEARCH ASSISTANTS

Andrew Bodnar (Legal Research)
Derek Creaser (Technical Research)

CONSTRUCTION MATERIALS SAFETY BOARD (CMSB)

Professor Kentaro Tsutsumi, P.E., Chairman
College of Engineering
Tufts University

Charles A. J. Theodore, P.E.
Homotech Consulting Group

Terrence Johnston, Laboratory Supervisor
Testing Laboratory
Metropolitan District Commission

Sanford Kaplan
Sanford Constriction Company

Francis Harvey, P.E., R.A.
Harvey and Tracy

Ara Shrestinian, P.E., Vice President
The Thompson & Lichtner Co., Inc.

Professor Louis C. Tartaglione, P.E.
Department of Civil Engineering University of Lowell

James Keefe
The Beacon Companies

Staff Liaison - Thomas M. Riley

FIRE PREVENTION - FIRE PROTECTION BOARD

John M. Murphy, Chairman
International Municipal Signalmen's
Association

Lt. Michael P. Astkin
Massachusetts Fire Prevention Association

Chief James W. Clarke
Massachusetts Fire Chiefs Association

Chief William V. Dolan
Massachusetts Fire Chiefs Association

Walter B. Adams, AIA
Registered Architect

Harold Cutler, P.E.
Registered Professional Engineer
(Fire Protection)

Lt. Robert Bourke
Massachusetts Fire Prevention Association

Steven Coan, State Fire Marshal
(Maurice M. Pilette, P.E. - Designee)

Carlisle V. Smith, PE
Board of Fire Prevention Regulations

Commissioner Martin Pierce
Mass. Fire Chiefs Association
(Paul M. Donga - Designee)

Staff Liaison - Thomas M. Riley

GEOTECHNICAL ADVISORY COMMITTEE

Edmund G. Johnson, P.E., Chairman
Haley & Aldrich, Inc.

Nino Catalano, P.E.
ICOS Boston

P. A. O'Neill, P.E.
New England Foundation, Co.

Peter K. Taylor, P.E., Vice Chairman
Stone & Webster Engineering

Eldon L. Abbot, P.E.
Parsons Brinkerhoff Quade and Douglas, Inc.

David Shields, P.E.
Geotechnical Engineers, Inc.

SEISMIC ADVISORY COMMITTEE

Norton S. Remmer, P.E., Chairman
Norton S. Remmer Consulting Engineers

Dr. John. T. Christian, P.E.
Consulting Engineer

Francis D. Leathers, P.E.
Geotechnical Engineers, Inc.

Nicholas Mariani, P.E.
Charles T. Main, Inc.

Maurice A. Reidy, Jr., P.E.
Maurice A. Reidy Engineers

Professor Kentaro Tsutsumi, P.E.

BBRS Representative
Kenneth B. Weisner, P.E., Vice Chairman
Le Messurier Consultants

Joseph J. Zona, P.E.
Simpson, Gumpertz, & Heger, Inc.

Dr. Cetin Soydemir, P.E.
Haley and Aldrich

Wayne Siladi, P.E.
Weidlinger Associates, Inc.

Richard Henige, P.E.
Le Messurier Consultants

Staff Liaison - Brian Gore, P.E., C. Eng.
MEMA Liaison. John C. Smith - Earthquake Program Manager

LOADS ADVISORY COMMITTEE

Dr. Frank J. Heger, P.E., Chairman
Simpson, Gumpertz & Heger, Inc.

Rubin M. Zallen, P.E.
Consulting Engineer

Hans William Hagen, P.E.
Lim Consultants

Arthur L. Brown, P.E.
Boston Building Consultants

Stanley S. Shuman, P.E.
BBRS Member

Michael Joliffe, P.E.
Zaldastani Associates

Edward LeNormand, P.E.
Chapin Associates

Tom McGarrigle, P.E.
Amman & Whitney

Staff Liaison - Brian Gore, P.E., C. Eng.

BUILDING OFFICIAL CERTIFICATION COMMITTEE

(The Standing Certification Committee)

Matthias J. Mulvey, Chairman
Massachusetts Building Commissioners
and Inspectors Association (Representative)
Certified Building Code Enforcement Official

Daniel P. O'Sullivan, Vice Chairman
Building Officials of Western Massachusetts
(Representative)
Certified Building Code Enforcement Official

Paul J. Nonni, Member at Large
Certified Building Code Enforcement Official

David Thyng, P.E.
Southeastern Massachusetts Building Officials
Association (Representative)
Certified Building Code Enforcement Official

Robert Betit, Member at Large
Certified Building Code Enforcement Official
(Peter DePesa)

Fred Hanack, P.E., Member from Academia

Robert A. Anderson, BBRS Representative

780 CMR: STATE BOARD OF BUILDING REGULATIONS AND STANDARDS
THE MASSACHUSETTS STATE BUILDING CODE

ENERGY ADVISORY COMMITTEE

Thomas M. Riley,
BBRS Representative

William Habib
Home Builders Association of Massachusetts

Dale Gigandet
State Fire Marshal Representative

Melvin Fink
Home Builders Association

Anne Gros
DOER Representative

Charles E. Wheeler
New England Power Service

Michael Andelman, P.E.,
Shooshanian Engineering, Inc

Ron Moreira
Bay State Gas Co.

Jerard Ives, R.A.
Jerard Ives Registered Architect

Michael Ferrante
Massachusetts Oil Heat Council

Robert Figuerido, P. E.
Digital Equipment Corp.

Charles Brewster
Accent Sales and Marketing

Nick Johnson, P. E.
Bard, Rao & Athanas Consulting Engineers, Inc.

Jack Desmond
Cox Engineering

Joel Wedding
Department of Labor and Industries

Robert Thorell
Building Commissioner, Westminster

Richard Kramer
Home Builders Association of Greater Springfield

Mike Martin
Waltham Development Co.

HIC ADVISORY COMMITTEE

Marian Doyle
BBRS Representative

Paul Schlaver
MA Consumer Coalition

Harry Smith
HIC Registrant

Arlie Costine Scott
Representative from the Office of the AG

William O'Brien
NARI Eastern MA Chapter

Frank Rosen
Fund Administrator

Jack Elliott
NARI Western MA Chapter

Ken Wade
Representative of the Attorney General

TECHNICAL CODE COUNCIL

Pursuant to M.G.L. c. 143, § 3, there shall be an advisory board known as the technical code council which shall make recommendations relative to the formulation, promulgation and administration of the state building code. The make-up of the council is available at the Office of the Board of Building Regulations and Standards.